

REMARKS

1. In the action dated 8/27/09 claims 22, 23, 27,37 and 41 were rejected under 35 USC 102(b) as being anticipated by Gordon (5,342,264).
2. Claim 26 was rejected under 35 USC 103(a) as being unpatentable over Gordon '264 in view of Gordon (5,792,029).
3. Claim 36 was rejected under 35 USC 103(a) as being unpatentable over Gordon '264 in view of Young et al (5,188,577) ; and claim 39 was withdrawn.

Arguments vs. Rejections of Claims**4. Claim 22 (with background re amendment):**

Applicant first "invented" (1997) a spring return version essentially as per Gordon '264 , but felt a spring return design lacking. It would have the same basic problem as a manual treadmill - a high force counter to the user's stride - making it difficult to walk-run in a normal manner as on a powered treadmill. Applicant's intent was to develop a manual pedal type exerciser which could compete with motor driven treadmills. Almost all treadmills are motor driven since manual treadmills require the user to overcome the sliding belt friction drag which involves a high incline and high user stride effort. Applicant saw a possibility of a pedal-on-rollers device allowing normal walk-run strides without the belt drag of a treadmill and providing a low cost manual pedal exerciser which can compete with motorized treadmills. A spring return design would not accomplish this, so applicant continued to work on the problem. Finally, applicant devised a method and design that would apply a return force to the pedal only during return and not during the stride. Applicant then developed five versions described in the Specification to provide this type of action.

Applicant would not have included the (2) spring return versions had his

prior art searches turned up Gordon '264 (Applicant thought such a device could have been patented 100 years ago.) and the broad claim would have been narrower. Therefore applicant has amended claim 22 as shown (pg. 3) , the application of the return force only during the return being novel and providing a useful result as explained above. Of the seven versions as listed in applicant's Appeal of 4/02/09 (pg. 5- 6), versions A, B, B-2, E and E-2 support the amended claim 22 , while versions C and D, having spring return, are abandoned. The five versions, A, B, B-2, E and E-2 all demonstrate application of return force to the pedal only during pedal return as in amended claim 22. The list of these versions in the appeal as noted above includes a description of the return means supporting claim 22 for each version.

5. Claim 23:

The examiner states (item 5) : "Gordon further discloses the means for returning (94) returns the rearmost of said foot pedals to said forward step-down position using step-down energy."

This is not true. Figs. 9 -10 show the stretch cord portions (106 , 110) of line 94 (or means 26) being stretched as the user exerts a force rearward, which is stride force acting against the stretch cords (col. 5, line 56- 68 & col. 6, line 1 and col. 6, line 67 to col. 7, line 7). The resulting forward force of the stretch cords built up during the stride then returns the pedal when the user ends the stride upon lifting the foot. No return means other than stretch cords acting against the stride are shown in the patent.

Applicant's step-down actuated return as in versions A (mechanical) and B (pneumatic) transfers the force and energy of the user's step-down on the forward pedal at end of stride via a mechanical or pneumatic connection between the step-down caused downward deflection (only) of the front pedal's

support and the forward, mainly horizontal motion or return of the rear (opposite) pedal just as it ends its stride. The transfer or connection means also amplifies the motion so that a short vertical step-down deflection causes a much longer return stroke of the returning pedal. A return force is applied only as a result of step-down on the opposite pedal and continues to be applied to the returning pedal as long as the opposite pedal is weighted during its stride rearward. There is no return force acting on the striding, weighted pedal. Thus, claim 23 is valid as dependent on newly amended claim 22.

6. Claim 27 : Applicant agrees, spring means is not new. Claim 27 is canceled.

7. Claim 37 : Applicant agrees, stride energy is not new. Claim 37 is canceled.

8. Claim 41 : As with claim 22, applicant believes that with the return force applied only during pedal return, five versions as under claim 22 above are new and patentable. Thus, claim 41 is amended similarly.

9. Claim 26 : The examiner's statement: "...Gordon '029 discloses a leg exerciser having a fluid means (182) for returning pedals to a home or starting position It would have been obvious to substitute Gordon's '264 spring means for returning with Gordon's '029 fluid means....".

In Gordon '029 , the "pneumatic cylinders" (182 , 188) (Figs. 6 -8) are not interconnected and rather than being air cylinders, are "air springs" or "air struts" with closed air chambers as are widely used instead of other springs. Stepping down on the support member 14 extends the cylinder 182 , while it (col. 8, line 28:) "operates to retract ... to pull the ... member 14 ... upwardly upon reduction of a downward force upon ... member 14 ." There is no interconnecting tubing, nor input/ outlet ports on the "cylinders" and no mention of any fluid interaction between the cylinders. It is a misapplication of the term "air cylinder" which implies an actuator receiving air pressure

input from another source to cause extension or retraction of the cylinder. They are springs as described in Gordon '029 and are obviously employed as such.

In applicant's invention the fluid means refers to a means for returning as per claim 22 and includes cylinders operating in master-slave fashion so that step-down (only) on one side causes the opposite pedal to return forward, applying a return force only during return, with advantages over spring return as described. Moreover, the cylinders in applicant's invention are sized and shaped so that relatively short down stroke of the stepped-on pedal causes a much longer stroke forward of the opposite, returning pedal. The essence of applicant's invention is the application of return force only during return, and applicant has shown several versions, mechanical as well as fluid means, accomplishing this. It is not about "simplifying or reducing manufacturing costs", but about creating a much better pedal exerciser which can compete against motorized treadmills, the pedal exerciser being manual (or in some cases having a small motor for really lazy users) and costing significantly less than the typical motorized treadmill. Applicant's "end of stride" induced return force with return force applied only during return eliminates an important draw-back of simple spring return as in Gordon '264, the high pedal drag during stride which is essentially the same as the friction drag problem of the very unpopular (though cheap) manual treadmill.

If it were obvious to do what applicant has shown, then Gordon, who's patent predates applicant's interest and involvement in the art by over four years, (or others) would have provided this improvement quite awhile ago. In the field of "pedal" exercisers, judging by the number of patents issued in the last few years, most workers in the art seem to have assumed that the best one can do to approach "normal variable stride walking" on pedals would be to

provide changes in the typical “strider” which “simulates” walking by swinging the feet, always equally weighted, back and forth. A prime example is the patent to Rawls et al (5,910,072) which the examiner used as a prime reference against this application. A very large expense was obviously put into that patent, involving a number of people working in the art for a well known exercise equipment seller (now bankrupt and owned by another). Yet, the “invention” was another “strider” (though very complex), but with an added ability to pivot the feet up and down while swinging back and forth to better “simulate” normal walking. In light of all the occupation among those skilled in the art in such “simulation” approaches, (and striders are as poorly received in the marketplace as manual treadmills) it is obvious that most of those working in the art have assumed it is not possible to devise a pedal exerciser on which one can walk or run in a normal manner as on a motorized treadmill. And Gordon evidently did not see that it was possible to make a marked improvement or that something much better than spring return was possible. Therefore, applicant’s fluid return means as per claim 26 dependent on now amended claim 22 is evidently not obvious and creates a new and surprising result as described above.

10. Claim 36 :

Applicant has amended claim 36, making it dependent on claim 23 instead of claim 22. The step-down deflection and energy is not only utilized for pedal return, but integrally provides impact reduction or cushioning of step-down in a new combination as in slightly revised claim 36.

Conclusion

Applicant submits that the claims as amended define over the prior art per Section 102 and meet the requirements of Section 103 as fully discussed, and respectfully requests reconsideration including examination of the non-elected species and withdrawn claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Wm E James", with a long horizontal flourish extending to the right.

William E. James (Applicant)

864-400-8660

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